



Awareness in Agriculture

Livestock Security Supplement

“Biosecurity is a set of management practices that prevent infectious diseases from being carried into a herd.”

Larry Schuler, DVM

Extension specialists, private veterinarians and state/federal health officers can help with the development and implementation of biosecurity plans.

Four basic disease prevention strategies

1. Quarantine

- Not sharing water, food, or air space
- Three weeks is adequate for diseases with short incubation periods, such as:
 - Infectious Bovine Rhinotracheitis
 - Bovine Viral Diarrhea
 - Bovine Respiratory Syncytial Virus

2. Disease Testing

- Buyers should ask sellers to test animals prior to the exchange.
- Not all tests are 100 percent accurate since the animal's infection status may not be determinable.
- Often times the infection status of a herd can be determined more accurately than a single animal.
- **Options:** Ask for the entire source herd to be tested or purchase from producers participating in disease certification programs.
- Ask your veterinarian which tests to request, which animals to test, and how many to test.

3. Vaccination

- Vaccination is also not 100 percent effective, nor is it available for all diseases.
- Therefore, it should be used in combination with other disease prevention tactics.
- Vaccination decisions should be based on:
 - Herd history and management practices
 - Regional problems
 - Costs and benefits
 - Risk factors

4. Sanitation

- Dogs, cats, birds, rodents and wildlife should be kept away from feed supplies. They can carry diseases such as Neospora, Salmonella, and Cryptosporidia.
- Manure handling equipment should not be used to feed cattle. Johne's Disease, E. coli, Salmonella, and Coccidiosis can be spread via the fecal to oral route.
- Visitors should be required to wear clean boots and coveralls.
- A footbath and brush for boot disinfection should be provided.
- Practice cleanliness and be aware of environmental changes on a daily basis.

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Newborn Calf Management

- Keep traffic to a minimum and work with youngest calves before working older calves.

Colostrum

- Select healthy donors that are known to be free of diseases such as Johne's and Bovine Leukemia Virus.
- The dams should have prolonged residence on the operation and be properly vaccinated.
- Follow these general guidelines to ensure that calves are getting what they should be getting from colostrum and nothing else:
 1. Use one dam for one calf
 2. Milk the dam within one hour after calving if possible, not before calving
 3. Clean the udder and teats prior to milking
 4. Do not store the colostrum warm for second feeding
 5. Save the excess colostrum frozen in Ziploc bags
 6. Thaw colostrum properly to prevent damage to immunoglobulins

Responding to Symptoms, Not Memorizing Diseases

1. Blisters

- Can signify very serious and contagious vesicular diseases such as:
 - Foot and Mouth Disease
 - Swine Vesicular Disease
 - Hog Cholera
 - African Swine Fever
 - Vesicular Stomatitis
 - African Horse Sickness
- Alternative diagnoses
 - Bovine Viral Diarrhea
 - Blister beetles in alfalfa

2. Neurological disorders

- Generally indicative of inflammation of the brain, which is known as Encephalitis
- Producers should watch livestock for:
 - Staggering
 - Personality changes
 - Disorientation
 - Vocalization (distressed sounds)
- Diseases that cause inflammation of the brain:
 - Eastern, Western and Venezuelan Encephalitis
 - West Nile Virus
 - Rabies

3. Sudden Death

- When an animal dies suddenly, Anthrax should be considered a possible cause.
- Sheep, cattle and horses are particularly susceptible to Anthrax.
- The disease has also been seen in pigs, mink, cats and dogs fed contaminated meat.
- Dr. Stoltenow says that Anthrax should be considered even on non-historical anthrax premises.
- Down animals should be considered suspect and not slaughtered for human consumption unless cause of illness can be clearly identified and does not pose a public health hazard.
- Other possible causes of sudden death include:
 - Acute bloat
 - Blackleg
 - Black Disease
 - Malignant Edema
 - Toxin
 - Lightning strike

Don't overrule the possibility of any disease. Call the State Veterinarian if you have concerns. Susan Keller and her assistants are trained to diagnose and control the spread of infectious diseases. Write Dr. Keller's number next to the telephone. A quick, proper response can be critical.

**Dr. Susan Keller
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